Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in this application.

Listing of Claims:

1. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material containing less than about 10,000 wppm iron and iron-containing species, based on the total weight of the matrix material; and

(c) optionally binder.

2. (Original) The composition of claim 1, wherein the matrix material contains less than about 7,000 wppm iron and iron-containing species, based on the total weight of the matrix material.

3. (Original) The composition of claim 2, wherein the matrix material contains less than about 4,000 wppm iron and iron-containing species, based on the total weight of the matrix material.

4. (Original) The composition of claim 1, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

5. (Original) The composition of claim 1, wherein the catalyst composition has a d_{50} particle size from about 20 to about 200 microns.

6. (Original) The composition of claim 1, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

7. (Original) The composition of claim 6, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

8. (Original) The composition of claim 1, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurrying medium.

9. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material containing less than about 15,000 wppm titanium and titanium-containing species, based on the total weight of the matrix material; and

(c) optionally binder.

10. (Original) The composition of claim 9, wherein the matrix material contains less than about 10,000 wppm titanium and titanium-containing species, based on the total weight of the matrix material.

11. (Original) The composition of claim 10, wherein the matrix material contains less than about 5,000 wppm titanium and titanium-containing, based on the total weight of the matrix material.

12, (Original) The composition of claim 9, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, saponite, hectorite and laponite.

13. (Original) The composition of claim 9, wherein the catalyst composition has a d_{50} particle size from about 20 to about 200 microns.

14. (Original) The composition of claim 9, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18,

SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

15. (Original) The composition of claim 14, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

16. (Original) The composition of claim 9, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurrying medium.

17. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material containing less than about 1,500 wppm nickel and nickel-containing species, based on the total weight of the matrix material; and

(c) optionally binder.

18. (Original) The composition of claim 17, wherein the matrix material contains less than about 300 wppm nickel and nickel-containing species, based on the total weight of the matrix material.

19. (Original) The composition of claim 18, wherein the matrix material contains less than about 150 wppm nickel and nickel-containing species, based on the total weight of the matrix material.

20. (Original) The composition of claim 17, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, hectorite, saponite and laponite

21. (Original) The composition of claim 17, wherein the catalyst composition has a d_{50} particle size from about 20 to about 200 microns.

22. (Original) The composition of claim 17, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

23. (Original) The composition of claim 22, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

24. (Original) The composition of claim 17, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurrying medium.

25. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material containing less than about 1,500 wppm cobalt and cobalt-containing species, based on the total weight of the matrix material; and

(c) optionally binder.

26. (Original) The composition of claim 25, wherein the matrix material contains less than about 100 wppm cobalt and cobalt-containing species, based on the total weight of the matrix material.

27. (Original) The composition of claim 26, wherein the matrix material contains less than about 5 wppm cobalt and cobalt-containing species, based on the total weight of the matrix material.

28. (Original) The composition of claim 25, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, hectorite, saponite and laponite.

29. (Original) The composition of claim 25, wherein the catalyst composition has a d_{50} particle size from about 20 to about 200 microns.

30. (Original) The composition of claim 25, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

31. (Original) The composition of claim 30, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

32. (Original) The composition of claim 25, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurrying medium.

33. (Currently Amended) A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

(a) selecting a clay or clay-type matrix material containing less than 10,000 wppm of iron and iron-containing species, based on the total weight of the matrix material;

(b) forming a slurry containing the matrix material, a molecular sieve, a slurrying medium, and optionally a binder; and

(c) drying the slurry to produce the molecular sieve catalyst composition.

34. (Original) The process of claim 33, wherein the matrix material contains less than 7,000 wppm of iron and iron-containing species, based on the total weight of the matrix material.

35. (Original) The process of claim 34, wherein the matrix material contains less than 4,000 wppm of iron and iron-containing species, based on the total weight of the matrix material.

36. (Original) The process of claim 33, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

37. (Currently Amended) A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

(a) selecting a clay or clay-type matrix material containing less than 15,000 wppm of titanium and titanium-containing species, based on the total weight of the matrix material;

(b) forming a slurry containing the matrix material, a molecular sieve, a slurrying medium, and optionally a binder; and

(c) drying the slurry to produce the molecular sieve catalyst composition.

38. (Original) The process of claim 37, wherein the matrix material contains less than 10,000 wppm of titanium and titanium-containing species, based on the total weight of the matrix material.

39. (Original) The process of claim 38, wherein the matrix material contains less than 5,000 wppm of titanium and titanium-containing species, based on the total weight of the matrix material.

40. (Original) The process of claim 37, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

41. (Currently Amended) A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

(a) selecting a clay or clay-type matrix material containing less than 1,500 wppm of nickel and nickel-containing species, based on the total weight of the matrix material;

(b) forming a slurry containing the matrix material, a molecular sieve, a slurrying medium, and optionally a binder; and

(c) drying the slurry to produce the molecular sieve catalyst composition.

42. (Original) The process of claim 41, wherein the matrix material contains less than 300 wppm of nickel and nickel-containing species, based on the total weight of the matrix material.

43. (Original) The process of claim 42, wherein the matrix material contains less than 150 wppm of nickel and nickel-containing species, based on the total weight of the matrix material.

44. (Original) The process of claim 41, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

45. (Currently Amended) A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

(a) selecting a clay or clay-type matrix material containing less than 1,500 wppm of cobalt and cobalt-containing species, based on the total weight of the matrix material;

(b) forming a slurry containing the matrix material, a molecular sieve, a slurrying medium, and optionally a binder; and

(c) drying the slurry to produce the molecular sieve catalyst composition.

46. (Original) The process of claim 45, wherein the matrix material contains less than 100 wppm of cobalt and cobalt-containing species, based on the total weight of the matrix material.

47. (Original) The process of claim 46, wherein the matrix material contains less than 5 wppm of cobalt and cobalt-containing species, based on the total weight of the matrix material.

48. (Original) The process of claim 45, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

49. (Withdrawn) A process for producing light olefins, the process comprising the steps of:

(a) providing an oxygenate in an oxygenate-containing feedstock; and

(b) contacting the oxygenate with a molecular sieve catalyst composition under conditions effective to convert at least a portion of the oxygenate to light olefins and oxygenate byproducts in a reaction effluent, wherein the reaction effluent contains less than about 10 weight percent oxygenate byproducts, based on the total weight of the reaction effluent.

50. (Withdrawn) The process of claim 49, wherein the reaction effluent contains less than about 5 weight percent oxygenate byproducts, based on the total weight of the reaction effluent.

51. (Withdrawn) The process of claim 50, wherein the reaction effluent contains less than about 3 weight percent oxygenate byproducts, based on the total weight of the reaction effluent.

52. (Withdrawn) The process of claim 51, wherein the reaction effluent contains less than about 1 weight percent oxygenate byproducts, based on the total weight of the reaction effluent.

53. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 10,000 wppm of iron and iron-containing species, based on the total weight of the matrix material.

54. (Withdrawn) The process of claim 53, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 7,000 wppm of iron and iron-containing species, based on the total weight of the matrix material.

55. (Withdrawn) The process of claim 54, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 4,000 wppm of iron and iron-containing species, based on the total weight of the matrix material.

56. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 15,000 wppm of titanium and titanium-containing species, based on the total weight of the matrix material.

57. (Withdrawn) The process of claim 56, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 10,000 wppm of titanium and titanium-containing species, based on the total weight of the matrix material.

58. (Withdrawn) The process of claim 57, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 5,000

wppm of titanium and titanium-containing species, based on the total weight of the matrix material.

59. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 1,500 wppm of nickel and nickel-containing species, based on the total weight of the matrix material.

60. (Withdrawn) The process of claim 59, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 300 wppm of nickel and nickel-containing species, based on the total weight of the matrix material.

61. (Withdrawn) The process of claim 60, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 150 wppm of nickel and nickel-containing species, based on the total weight of the matrix material.

62. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 1,500 wppm of cobalt and cobalt-containing species, based on the total weight of the matrix material.

63. (Withdrawn) The process of claim 62, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 100 wppm of cobalt and cobalt-containing species, based on the total weight of the matrix material.

64. (Withdrawn) The process of claim 63, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 5 wppm of cobalt and cobalt-containing species, based on the total weight of the matrix material.

65. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 1,500 wppm of manganese and manganese-containing species, based on the total weight of the matrix material.

66. (Withdrawn) The process of claim 65, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 300 wppm of manganese and manganese-containing species, based on the total weight of the matrix material.

67. (Withdrawn) The process of claim 66, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 150 wppm of manganese and manganese-containing species, based on the total weight of the matrix material.

68. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 1,500 wppm of vanadium and vanadium-containing species, based on the total weight of the matrix material.

69. (Withdrawn) The process of claim 68, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 300 wppm of vanadium and vanadium-containing species, based on the total weight of the matrix material.

70. (Withdrawn) The process of claim 69, wherein the molecular sieve catalyst composition contains a matrix material, the matrix material containing less than 150 wppm of vanadium and vanadium-containing species, based on the total weight of the matrix material.

71. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition contains a matrix material selected from the group consisting of: rare earth

metals, non-active metal oxides including zirconia, magnesia, thoria, beryllia, quartz, silica, or sols, silica-magnesia, silica-zirconia, silica-alumina, silica-alumina-thoria, synthetic clays, montmorillonite, kaolinite, halloysite, dickite, nacrite, anauxite, laponite, and synthetic mica montmorillonites.

72. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition contains a molecular sieve selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

73. (Withdrawn) The process of claim 72, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

74. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition comprises less than 10,000 wppm of iron and iron-containing species, based on the total weight of the molecular sieve catalyst composition.

75. (Withdrawn) The process of claim 74, wherein the molecular sieve catalyst composition comprises less than 7,000 wppm of iron and iron-containing species, based on the total weight of the molecular sieve catalyst composition.

76. (Withdrawn) The process of claim 75, wherein the molecular sieve catalyst composition comprises less than 4,000 wppm of iron and iron-containing species, based on the total weight of the molecular sieve catalyst composition.

77. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition comprises less than 15,000 wppm of titanium and titanium-containing species, based on the total weight of the molecular sieve catalyst composition.

78. (Withdrawn) The process of claim 77, wherein the molecular sieve catalyst composition comprises less than 10,000 wppm of titanium and titanium-containing species, based on the total weight of the molecular sieve catalyst composition.

79. (Withdrawn) The process of claim 78, wherein the molecular sieve catalyst composition comprises less than 5,000 wppm of titanium and titanium-containing species, based on the total weight of the molecular sieve catalyst composition.

80. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition comprises less than 1,500 wppm of nickel and nickel-containing species, based on the total weight of the molecular sieve catalyst composition.

81. (Withdrawn) The process of claim 80, wherein the molecular sieve catalyst composition comprises less than 300 wppm of nickel and nickel-containing species, based on the total weight of the molecular sieve catalyst composition.

82. (Withdrawn) The process of claim 81, wherein the molecular sieve catalyst composition comprises less than 150 wppm of nickel and nickel-containing species, based on the total weight of the molecular sieve catalyst composition.

83. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition comprises less than 1,500 wppm of cobalt and cobalt-containing species, based on the total weight of the molecular sieve catalyst composition.

84. (Withdrawn) The process of claim 83, wherein the molecular sieve catalyst composition comprises less than 100 wppm of cobalt and cobalt-containing species, based on the total weight of the molecular sieve catalyst composition.

85. (Withdrawn) The process of claim 84, wherein the molecular sieve catalyst composition comprises less than 5 wppm of cobalt and cobalt-containing species, based on the total weight of the molecular sieve catalyst composition.

86. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition comprises less than 1,500 wppm of manganese and manganese-containing species, based on the total weight of the molecular sieve catalyst composition.

87. (Withdrawn) The process of claim 86, wherein the molecular sieve catalyst composition comprises less than 300 wppm of manganese and manganese-containing species, based on the total weight of the molecular sieve catalyst composition.

88. (Withdrawn) The process of claim 87, wherein the molecular sieve catalyst composition comprises less than 150 wppm of manganese and manganese-containing species, based on the total weight of the molecular sieve catalyst composition.

89. (Withdrawn) The process of claim 49, wherein the molecular sieve catalyst composition comprises less than 1,500 wppm of vanadium and vanadium-containing species, based on the total weight of the molecular sieve catalyst composition.

90. (Withdrawn) The process of claim 89, wherein the molecular sieve catalyst composition comprises less than 300 wppm of vanadium and vanadium-containing species, based on the total weight of the molecular sieve catalyst composition.

91. (Withdrawn) The process of claim 90, wherein the molecular sieve catalyst composition comprises less than 150 wppm of vanadium and vanadium-containing species, based on the total weight of the molecular sieve catalyst composition.

92. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material containing less than about 1,500 wppm manganese and manganese-containing species, based on the total weight of the matrix material; and

(c) optionally binder.

93. (Original) The composition of claim 92, wherein the matrix material contains less than about 300 wppm manganese and manganese-containing species, based on the total weight of the matrix material.

94. (Original) The composition of claim 93, wherein the matrix material contains less than about 150 wppm manganese and manganese-containing species, based on the total weight of the matrix material.

95. (Original) The composition of claim 92, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, hectorite, saponite and laponite.

96. (Original) The composition of claim 92, wherein the catalyst composition has a d50 particle size from about 20 to about 200 microns.

97. (Original) The composition of claim 92, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

98. (Original) The composition of claim 97, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

99. (Original) The composition of claim 92, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurrying medium.

100. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material containing less than about 1,500 wppm vanadium and vanadium-containing species, based on the total weight of the matrix material; and

(c) optionally binder.

101. (Original) The composition of claim 100, wherein the matrix material contains less than about 300 wppm vanadium and vanadium-containing species, based on the total weight of the matrix material.

102. (Original) The composition of claim 101, wherein the matrix material contains less than about 150 wppm vanadium and vanadium-containing species, based on the total weight of the matrix material.

103. (Original) The composition of claim 100, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, montmorillonite, hectorite, saponite and laponite.

104. (Original) The composition of claim 100, wherein the catalyst composition has a d50 particle size from about 20 to about 200 microns.

105. (Original) The composition of claim 100, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

106. (Original) The composition of claim 105, wherein the molecular sieve is selected from the group consisting of SAPO-34, AEI/CHA intergrowths, the metal containing forms thereof, and mixtures thereof.

107. (Original) The composition of claim 100, wherein the catalyst composition is a slurry, said catalyst composition further comprising:

(d) a slurrying medium.

108. (Currently Amended) A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

(a) selecting a clay or clay-type matrix material containing less than 1,500 wppm of manganese and manganese-containing species, based on the total weight of the matrix material;

(b) forming a slurry containing the matrix material, a molecular sieve, a slurrying medium, and optionally a binder; and

(c) drying the slurry to produce the molecular sieve catalyst composition.

109. (Original) The process of claim 108, wherein the matrix material contains less than 300 wppm of manganese and manganese-containing species, based on the total weight of the matrix material.

110. (Original) The process of claim 109, wherein the matrix material contains less than 150 wppm of manganese and manganese-containing species, based on the total weight of the matrix material.

111. (Original) The process of claim 108, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

112. (Currently Amended) A process for forming a molecular sieve catalyst composition, the process comprising the steps of:

(a) selecting a clay or clay-type matrix material containing less than 1,500 wppm of vanadium and vanadium-containing species, based on the total weight of the matrix material;

(b) forming a slurry containing the matrix material, a molecular sieve, a slurrying medium, and optionally a binder; and

(c) drying the slurry to produce the molecular sieve catalyst composition.

113. (Original) The process of claim 112, wherein the matrix material contains less than 300 wppm of vanadium and vanadium-containing species, based on the total weight of the matrix material.

114. (Original) The process of claim 113, wherein the matrix material contains less than 150 wppm of vanadium and vanadium-containing species, based on the total weight of the matrix material.

115. (Original) The process of claim 112, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof, and mixtures thereof.

116. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material; and

(c) optionally binder, wherein the catalyst composition contains less than about 10,000 wppm iron and iron-containing species, based on the total weight of the catalyst composition.

117. (Original) The composition of claim 116, wherein the catalyst composition contains less than about 7,000 wppm iron and iron-containing species, based on the total weight of the catalyst composition.

118. (Original) The composition of claim 117, wherein the catalyst composition contains less than about 4,000 wppm iron and iron-containing species, based on the total weight of the catalyst composition.

119. (Original) The composition of claim 116, wherein the matrix material contains less than about 10,000 wppm iron and iron-containing species, based on the total weight of the matrix material.

120. (Original) The composition of claim 119, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

121. (Original) The composition of claim 116, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

122. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material; and

(c) optionally binder, wherein the catalyst composition contains less than about 15,000 wppm titanium and titanium-containing species, based on the total weight of the catalyst composition.

123. (Original) The composition of claim 122, wherein the catalyst composition contains less than about 10,000 wppm titanium and titanium-containing species, based on the total weight of the catalyst composition.

124. (Original) The composition of claim 123, wherein the catalyst composition contains less than about 5,000 wppm titanium and titanium-containing species, based on the total weight of the catalyst composition.

125. (Original) The composition of claim 122, wherein the matrix material contains less than about 15,000 wppm titanium and titanium-containing species, based on the total weight of the matrix material.

126. (Original) The composition of claim 125, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

127. (Original) The composition of claim 122, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

128. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material; and

(c) optionally binder, wherein the catalyst composition contains less than about 1,500 wppm nickel and nickel-containing species, based on the total weight of the catalyst composition.

129. (Original) The composition of claim 128, wherein the catalyst composition contains less than about 300 wppm nickel and nickel-containing species, based on the total weight of the catalyst composition.

130. (Original) The composition of claim 129, wherein the catalyst composition contains less than about 150 wppm nickel and nickel-containing species, based on the total weight of the catalyst composition.

131. (Original) The composition of claim 128, wherein the matrix material contains less than about 1,500 wppm nickel and nickel-containing species, based on the total weight of the matrix material.

132. (Original) The composition of claim 131, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

133. (Original) The composition of claim 128, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

134. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material; and

(c) optionally binder, wherein the catalyst composition contains less than about 1,500 wppm cobalt and cobalt-containing species, based on the total weight of the catalyst composition.

135. (Original) The composition of claim 134, wherein the catalyst composition contains less than about 100 wppm cobalt and cobalt-containing species, based on the total weight of the catalyst composition.

136. (Original) The composition of claim 135, wherein the catalyst composition contains less than about 5 wppm cobalt and cobalt-containing species, based on the total weight of the catalyst composition.

137. (Original) The composition of claim 134, wherein the matrix material contains less than about 1,500 wppm cobalt and cobalt-containing species, based on the total weight of the matrix material.

138. (Original) The composition of claim 137, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

139. (Original) The composition of claim 134, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

140. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material; and

(c) optionally binder, wherein the catalyst composition contains less than about 1,500 wppm manganese and manganese-containing species, based on the total weight of the catalyst composition.

141. (Original) The composition of claim 140, wherein the catalyst composition contains less than about 300 wppm manganese and manganese-containing species, based on the total weight of the catalyst composition.

142. (Original) The composition of claim 141, wherein the catalyst composition contains less than about 150 wppm manganese and manganese-containing species, based on the total weight of the catalyst composition.

143. (Original) The composition of claim 140, wherein the matrix material contains less than about 1,500 wppm manganese and manganese-containing species, based on the total weight of the matrix material.

144. (Original) The composition of claim 143, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

145. (Original) The composition of claim 140, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-

41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.

146. (Currently Amended) A catalyst composition, comprising:

(a) a molecular sieve;

(b) a clay or clay-type matrix material; and

(c) optionally binder, wherein the catalyst composition contains less than about 1,500 wppm vanadium and vanadium-containing species, based on the total weight of the catalyst composition.

147. (Original) The composition of claim 146, wherein the catalyst composition contains less than about 300 wppm vanadium and vanadium-containing species, based on the total weight of the catalyst composition.

148. (Original) The composition of claim 147, wherein the catalyst composition contains less than about 150 wppm vanadium and vanadium-containing species, based on the total weight of the catalyst composition.

149. (Original) The composition of claim 146, wherein the matrix material contains less than about 1,500 wppm vanadium and vanadium-containing species, based on the total weight of the matrix material.

150. (Original) The composition of claim 149, wherein the matrix material is selected from the group consisting of: kaolin, halloysite, kaolinite, dickite, nacrite, hectorite and laponite.

151. (Original) The composition of claim 146, wherein the molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, AEI/CHA intergrowths, metal containing forms thereof, intergrown forms thereof and mixtures thereof.